

Split 414 UHD™



USER MANUAL

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SAFETY WARNINGS

- To prevent short circuits, this product should only be used inside and only in dry spaces. Do not expose the components to rain or moisture. Do not use the product close to a bath, swimming pool etc.
- Do not expose the components of your systems to extremely high temperatures or bright light sources.
- In case of improper usage or if you have altered and repaired the product yourself, all guarantees expire. Marmitek does not accept responsibility in the case of improper usage of the product or when the product is used for purposes other than specified. Marmitek does not accept responsibility for additional damage other than covered by the legal product responsibility.
- This product is not a toy. Keep out of reach of children.
- Do not open the product: the device may contain live parts. The product should only be repaired or serviced by a qualified expert.
- Only connect the adapter to the mains after checking whether the mains voltage is the same as the values on the identification tags. Never connect an adapter or power cord when it is damaged. In that case, contact your supplier.

1. INTRODUCTION

Congratulations on your purchase of the Marmitek Split 414 UHD™!

This active HDMI splitter connects 4 screens (TV or projector) with a single HDMI source. Unlike passive HDMI splitters, it can do this without any loss of signal or encryption, while maintaining optimal image quality. It's also ideal for use with HDMI Extenders, for example, to another room. The Split 414 UHD™ supports Ultra HD (4k), Full HD (1080p) and all 3D formats, making it suitable for all your existing and future equipment.

Marmitek products are manufactured with the utmost precision and are of high quality. Please read this user manual first and follow the instructions so you can make the most of this product's capabilities.

2. SET CONTENTS

1 x HDMI Splitter
1 x HDMI Cable
1 x Power Adapter
1 x User Manual

3. BENEFITS

- Allows video and audio from your digital TV decoder, satellite receiver, game console or Blu-ray player to be simultaneously displayed on 4 screens (TV or projector).
- Eliminates the need to change HDMI cables if you want to watch films or play games on another screen.
- If required, select your video resolution (4k2k, 1080p, 1080i) and audio format (HD Audio, DTS 5.1, Dolby Digital, PCM 2.0) on the HDMI output, using the unique EDID switch.

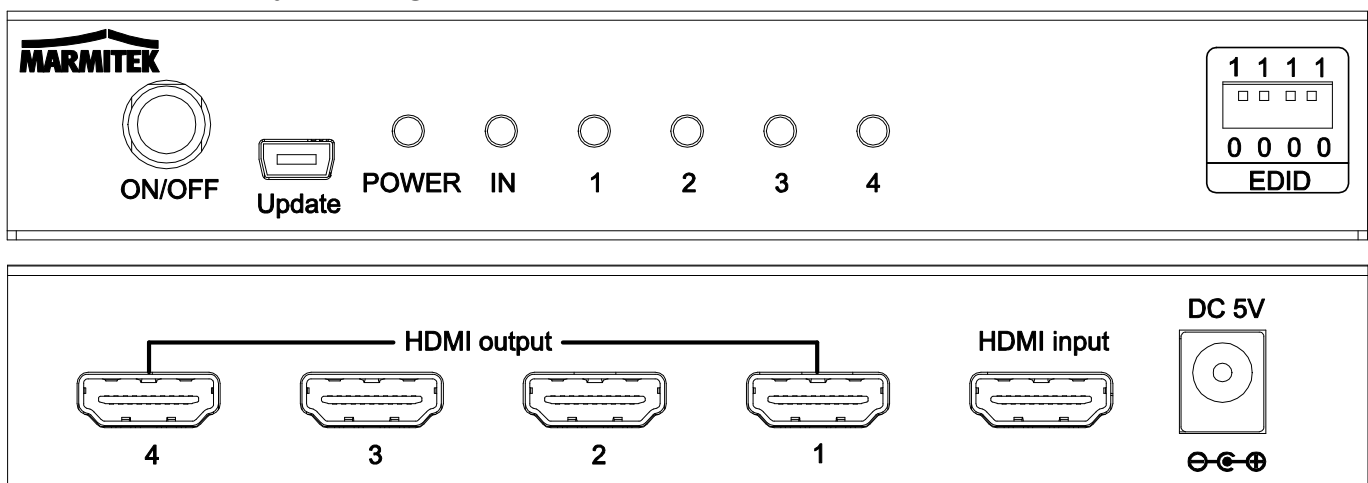
HDMI PROPERTIES

- Video bandwidth 300MHz (enables display of Ultra HD 4k and Full HD 1080p)
- Supports all 3D formats (suitable for use with your own 3D equipment)
- Deep Color 36-bit (billions instead of millions of colours, better reproduction of subtle differences in gradation and a higher contrast ratio)
- Dolby TrueHD and DTS HD Master Audio (high quality audio support)

4. INSTALLATION

Before installation:

- Turn off all devices (TV and HDMI sources) before connecting them to the Split 414 UHD™. If a device cannot be turned off, please remove the plug from the socket.
- Only use High Speed HDMI® certified cables for the best picture and sound quality. Using too much force to connect or disconnect the HDMI cables may damage them.



1. Use an HDMI cable to connect the HDMI source (such as a game console, Blu-ray player and Digital TV Decoder) to the HDMI port marked "HDMI Input".
2. Use an HDMI cable to connect the screens (TVs or projectors) to HDMI ports marked "HDMI output".
3. Connect the power adapter to the "DC 5V" and insert the plug into the socket.

5. EDID SETTINGS

EDID stands for Extended Display Identification Data and is used for communication between HDMI sources and screens, enabling you to determine the supported display resolutions and audio formats. The HDMI source requests this information from the screen and determines the best resolution or audio format. When using multiple screens (TVs or projectors), the best resolution and audio format that is supported by all connected screens is determined.

This may cause problems in some situations, for example, when one of the connected sources or screens does not fully support EDID. Using switches at the front, you can manually enter the required video resolution and audio format. See Appendix 1 on page 39 for an overview of the associated settings.

Tip: In standard situations, always use the automatic setting, which will result in sound and image on all connected screens. With manual settings, no image or sound may be displayed on one or more screens if the appropriate setting is not supported

6. FREQUENTLY ASKED QUESTIONS

No (or poor) image and sound

If you experience poor or no picture after connecting the HDMI switcher, please try to identify the problem by connecting the devices to your screen (TV, monitor or projector) one by one. This allows you to determine whether the problem is with the HDMI sources, the HDMI cables, the HDMI switcher or the screen.

- Make sure the power adapter is connected and plugged in.
- For the best picture and sound quality, only use High Speed HDMI® certified cables.
- Do not use HDMI cables longer than those specified in the technical data.
- Check the HDMI cables and/or connectors for damage.
- Both the HDMI source and your screen should fully support HDMI.
- Check that your HDMI sources and screen support HDCP (High Bandwidth Digital Content Protection) copy protection.

Incorrect 3D display

- Please check whether the HDMI source is set to display 3D and/or it is set to automatic.
- Both the HDMI source and your HD screen should support the same 3D formats.
- Please check that 3D is displayed correctly by connecting the HDMI source directly to the HD display with an HDMI cable.

Do you have other questions that have not been resolved by the above information? Please go to www.marmitek.com

7. TECHNICAL INFORMATION

Connections

HDMI input	1x HDMI (19-pin female)
HDMI output	4x HDMI (19-pin female)
HDMI cable length	max. 15 metres

Video

Supported resolutions	480p, 576p, 720p, 1080i, 1080p and 4k2k@24/30
HDMI standards	HDCP, CEC, EDID, DVI, all 3D formats, Deep Color (36-bit), x.v.Color
Video Bandwidth	10.2Gbps
Clock frequency	300MHZ

Audio

HDMI audio	DTS-HD Master Audio, Dolby TrueHD, LPCM 7.1, DTS, Dolby-AC3 and 2.0CH
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Housing

Dimensions (H x W x D)	147 x 71 x 25mm
Weight	300 g

Environment

Ambient temperature	+0 to +70° C
Ambient humidity	10% to 85%

Power

External power adapter	100-240VAC @50-60Hz, 5VDC @ 1A
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Specifications may change without prior notice.



Environmental Information for Customers in the European Union

European Directive 2002/96/EC requires that the equipment bearing this symbol on the product and/or its packaging must not be disposed of with unsorted municipal waste. The symbol indicates that this product should be disposed of separately from regular household waste streams. It is your responsibility to dispose of this and other electric and electronic equipment via designated collection facilities appointed by the government or local authorities. Correct disposal and recycling will help prevent potential negative consequences to the environment and human health. For more detailed information about the disposal of your old equipment, please contact your local authorities, waste disposal service, or the shop where you purchased the product.

DECLARATION OF CONFORMITY

Hereby, Marmitek BV, declares that this Split 414 UHD™ is in compliance with the essential requirements and other relevant provisions of the following Directives:

Directive 2004/108/EC of the European parliament and of the council of 15 December 2004 on the approximation of the laws of the Member States relating to electromagnetic compatibility

Directive 2006/95/EC of the European Parliament and of the Council of 12 December 2006 on the harmonisation of the laws of Member States relating to electrical equipment designed for use within certain voltage limits

Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment

Commission Regulation (EC) No 278/2009 of 6 April 2009 implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to Eco design requirements for no-load condition electric power consumption and average active efficiency of external power supplies



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APPENDIX: EDID SETTINGS

Tip: In standard situations, always use the automatic setting, which will result in sound and image on all connected screens. With manual settings, no image or sound may be displayed on one or more screens if the appropriate setting is not supported.

#	EDID Selector	Description
1	0000	1080p, Stereo Audio 2.0
2	0001	1080p, Dolby/DTS 5.1
3	0010	1080p, HD Audio 7.1
4	0011	1080i, Stereo Audio 2.0
5	0100	1080i, Dolby/DTS 5.1
6	0101	1080i, HD Audio 7.1
7	0110	3D, Stereo Audio 2.0
8	0111	3D, Dolby/DTS 5.1
9	1000	3D, HD Audio 7.1
10	1001	4K2K, Stereo Audio 2.0
11	1010	4K2K, Dolby/DTS 5.1
12	1011	4K2K, HD Audio 7.1
13	1100	N/A
14	1101	N/A
15	1110	N/A
16	1111	Automatic (default)

